

What is claimed is:

1. A cell culture insert (1) comprising a beaker-shaped insert wall (11) having a membrane filter bottom (9) and projecting support arms (3, 4) that are distributed around the circumference of the top and having lateral spacers (7, 8) for a vertical and horizontal orientation in a well (2) with a liquid culture medium (N) in a cell culture plate, characterized in that the spacers (7, 8) are distributed around the circumference of the cell culture insert (1) and designed with different lengths to the side in such a way that one large feed window (5) and multiple smaller windows (5A) are created.
2. A cell culture insert according to claim 1, characterized in that at least two of the spacers (7) are designed as triangular spacing webs that are tapered towards the bottom.
3. A cell culture insert according to claim 1, characterized in that the shortest spacer (8) determines a minimum space between the insert wall (11) of the cell culture insert (1) and the interior wall (W) of the well (2), which prevents a capillary rising of the liquid culture medium (N).
4. A cell culture insert according to claim 1, characterized in that the space between the insert wall (11) of the cell culture insert (1) and an interior wall (W) of the well (2) is determined by a downwardly tapered shape of the insert wall (11).
5. A cell culture insert according to claim 1, characterized in that the cell culture insert (1) is held on three support arms (3, 4) eccentrically suspended in the well (2).

6. A cell culture insert according to claim 5, characterized in that the support arms (3, 4) are arranged adjoining above the spacers (7, 8) and offset around the circumference by 120 degrees in each case.
7. A cell culture insert according to claim 1, characterized in that the insert wall (11) incorporates at the top, at least between the two longer support arms (4), a wall cutout (12) having a lower edge (13) that is located at a distance above a normal fluid surface (10) of the liquid culture medium (N).
8. A cell culture insert according to claim 7, characterized in that the lower edge (13) of the wall cutout (12) extends to the support arms (3, 4) in an arc shape.
9. A cell culture insert according to claim 7, characterized in that the wall cutout has a depth (T) that is approximately 20% of an insert elevation (H) of the insert (1, 1A).
10. A cell culture insert according to claim 1, characterized in that its insert wall (11) has, at its end facing the membrane, a greater wall thickness (WU) than at the top.
11. A cell culture insert according to claim 10, characterized in that its insert wall (11) is designed tapered on the outside from the top toward the bottom with a shaping incline of approximately 1.5 degrees and that the insert wall (11) has on its inside an incline of 3.3 degrees.
12. A cell culture insert according to claim 11, characterized in that the membrane (9) has a diameter (D) larger than an inner well radius (R) of the surrounding well (2).

13. A cell culture insert according to claim 11, characterized in that the well radius (R) is 10 - 12 mm, the diameter (D) of the membrane (9) is 11 - 13 mm, the insert wall is 15 - 17 mm wide on the outside at the top and the spacers (7, 8) ensure an eccentricity of over 1.3 mm of the cell culture insert (1) relative to the well (2).
14. A cell culture insert according to claim 1, characterized in that it is composed of tinted material.
15. A cell culture insert according to claim 14, characterized in that it is composed of transparent material.